

## PATENT ABSTRACTS OF JAPAN

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(21)Application 10-012298 (71)Applicant MITSUBISHI MATERIALS  
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(54) VALVE SEAT MADE OF FE-BASE SINTERED ALLOY, EXHIBITING  
EXCELLENT WEAR RESISTANCE UNDER HIGH PLANE PRESSURE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a valve seat made of Fe-base sintered alloy, exhibiting excellent wear resistance under high plane pressure.

SOLUTION: The valve seat is constituted of an Fe-base sintered alloy which has an overall composition consisting of, by weight, 0.7-1.4% C, 0.2-0.9% Si, 15.1-26% Co, 6.1-11% Mo, 2.6-4.7% Cr, 0.5-1.2% Ni, 0.2-0.7% Nb, and the balance Fe with inevitable impurities, a structure where hard grains of a wear resistant Co-base alloy composed of Co-Mo-Cr alloy are dispersedly distributed in a matrix of alloy steel by

10 to 24 area % from the observation on the photograph of a structure under an optical microscope, and 5 to 15% porosity. Further, the valve seat is constituted of the above Fe-base sintered alloy into which copper or copper alloy or lead or lead alloy is infiltrated, if necessary.

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